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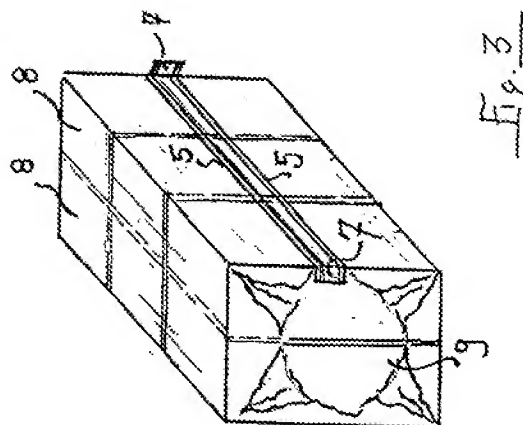
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(54) **Tear device for automatic cutting of shrink-wrap packaging films.**

(57) The present invention relates to a tear device consisting of a tear-line guided double crease 5 and of two tabs 7 obtained by cutting away a portion of the wrapping film 4 before heat sealing which, when appropriately pulled, are capable of tearing the film along the creasing lines.



The present invention relates to a device capable of tearing the shrink-wrap film widely used for the packaging of various products.

As is well known, shrink-wrapping is widely employed by the food industry and by other industries in order to make up sets of individual packages which, all wrapped up in a single shrink-wrapping plastic film, can thus be easily and safely transported.

It is also known that the personnel in charge of unpacking products encounter considerable difficulty in cutting the film which, given its consistency, requires the use of sharp cutting tools representing a risk not only for the operator but also for the integrity of the packaged product.

This is especially the case with food products which can be easily damaged by the cutting tool and thus lose their organoleptic properties so that the product becomes unsaleable.

A common example is given by vacuum-packed coffee and by liquid-containing treated paper and soft plastic packs in general.

The invention which is described here is designed to overcome these disadvantages. The device according to this invention is obtained by pre-cutting and creasing the film so that operator can easily tear the film open by pulling an appropriate tab without damaging the product.

One embodiment of the invention will now be described with reference to the accompanying drawings in which:

Figure 1, is a front view of the shrink-wrap film pre-cutting and creasing station, which is part of the automatic packaging line.

Figure 2, is a top view of the film at outlet of the pre-cutting and creasing station.

Figure 3, is a view of the package showing the tear device as per the present invention.

Referring now in detail to the drawings, reference numeral 1 shows the cutting and sealing bar, 2 is the striker plate, 3 is the film roll, 4 is the unwound flat film, 5 is the double creasing made by bar (1) by means of heat applied to the particular area concerned, 6 is the film portion cut off from the unwound film (4) at crease (5) so as to create two tabs 7 which can be easily pulled by the operator to easily tear the packaging film along the crease, namely the point of the film wrapping weakened by the sealing line. 8 shows the individual packs, 9 is the characteristic folding of the wrapping film in the front and in the back of the package, which allows the tabs (7) to be easily pulled by the operator.

Having thus described the invention, it is not intended that it be so limited as changes in dimensions, materials and shapes may be readily made therein without departing from the scope of the invention. Accordingly, it is intended that the description and accompanying drawings be interpreted as illustrative and not in a limiting sense.

Claims

1. A TEAR DEVICE FOR AUTOMATIC CUTTING OF SHRINK-WRAP PACKAGING FILMS comprising two or more tear-line creases (5), applied transversally to the wrapping film (4) by means of sealing prior to package being introduced into the oven, characterized by the fact that the two ends of said creases continue beyond the wrapping film itself having the film been duly cut (6) in order to form two pull tabs (7) for the purpose of easily tearing open the film.
2. A TEAR DEVICE FOR AUTOMATIC CUTTING OF SHRINK-WRAP PACKAGING FILMS as set forth in claim 1, characterized by the fact that the shrink-wrap film, cut to appropriate dimensions as per packaging requirements, can be made to wrap up a set of single boxes, which together make up the package, so that the double creasing comes to be located in an easily accessible part of the package; such as along side, and especially so that the pull tabs (7) may protrude from the edge of the package.
3. A TEAR DEVICE FOR AUTOMATIC CUTTING OF SHRINK-WRAP PACKAGING FILMS as set forth in claims 1 and 2 above, characterized by the fact that the invention is essentially as described and/or illustrated herein for the specified purposes.

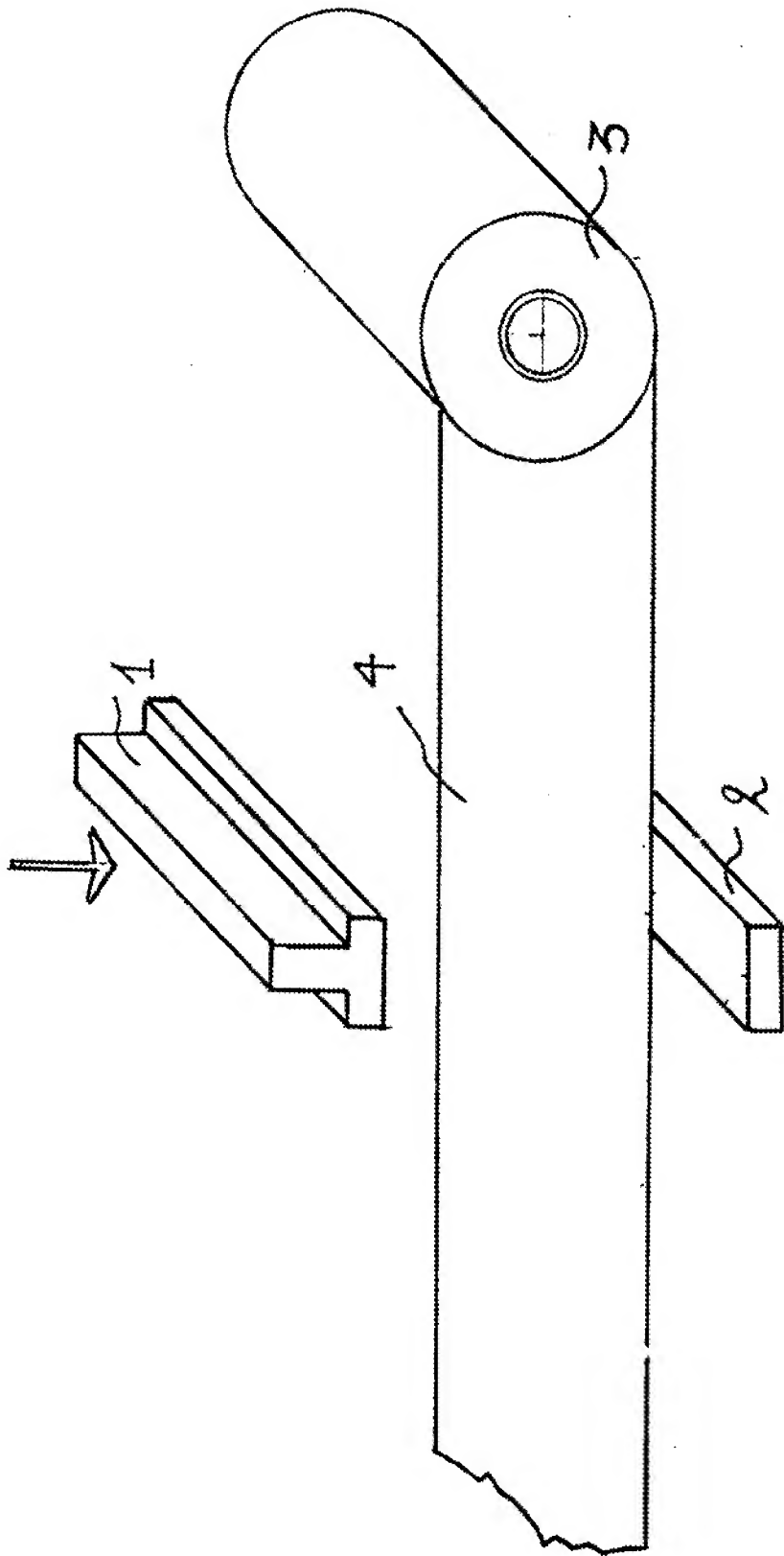


Fig. 1

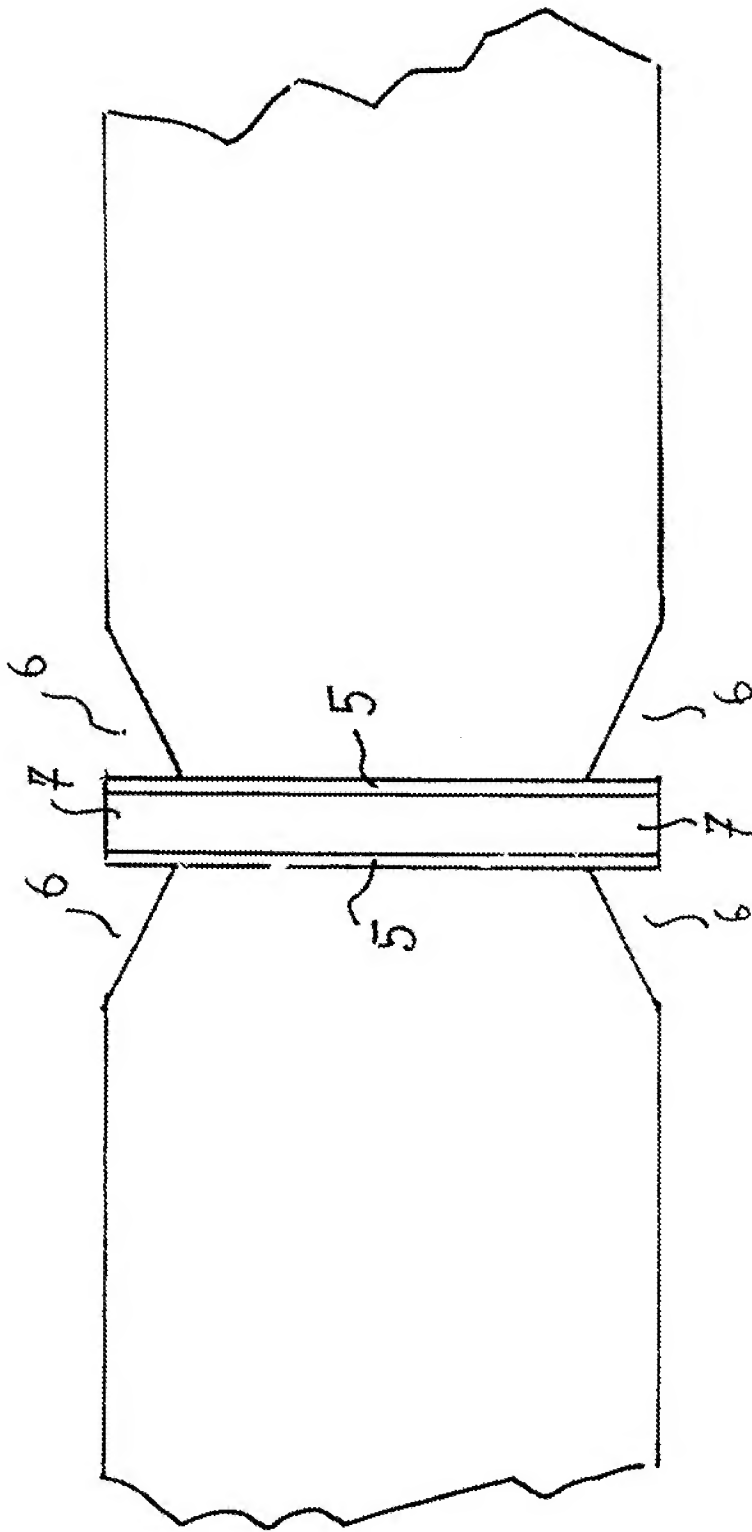
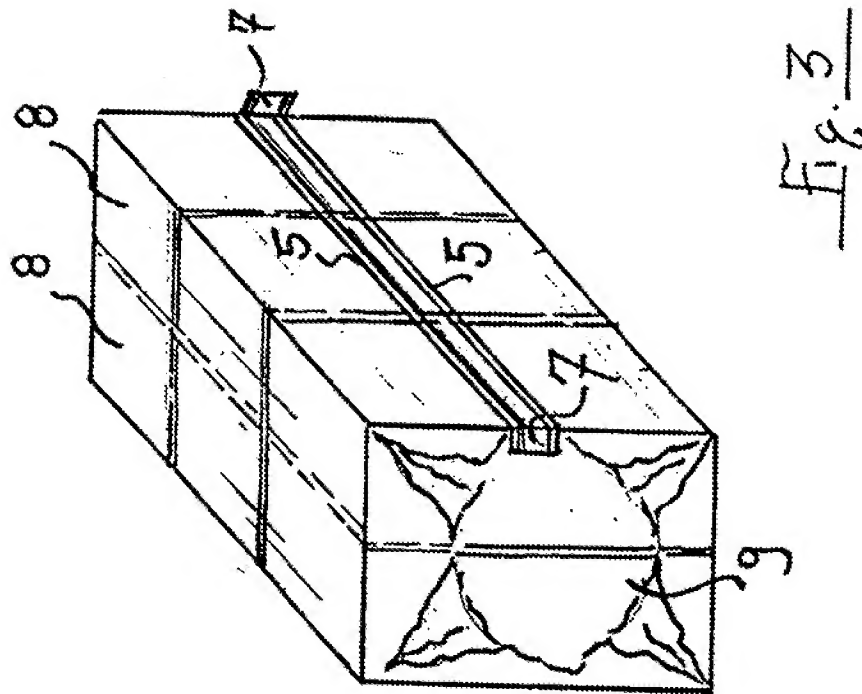


Fig. 2





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EUROPEAN SEARCH REPORT

Application Number

EP 92 83 0074

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. CL.5)
X	GB-A-2 073 133 (LAUREL BANK MACHINE) * page 1, line 96 - line 106; claims; figures *	1	B65B61/18 B65B61/02 B31B1/90
X	US-A-3 273 302 (R. WALTER) * column 2, line 3 - line 41; figure 6 *	1,2	
X	US-A-3 409 206 (D. SLODKA) * column 4, line 23 - line 70; figures 1-4 *	1	
X	EP-A-0 395 249 (PHILIP MORRIS) * column 3, line 23 - column 6, line 20; figures *	1,2	
X	GB-A-2 156 303 (NEUSIEDLER) * page 2, line 14 - line 55; figures *	1,2	
			TECHNICAL FIELDS SEARCHED (Int. CL.5)
			B65B B31B B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 27 JULY 1992	Examiner JAGUSIAK A, H. G.
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>I : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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